



US006141627A

United States Patent [19]

Yoon

[11] **Patent Number:** 6,141,627[45] **Date of Patent:** Oct. 31, 2000

[54] **METHOD AND APPARATUS FOR CONTROLLING POWER CONSUMPTION IN A TILT CORRECTING COIL**

[75] Inventor: Yeo Chang Yoon, Seoul, Rep. of Korea

[73] Assignee: Samsung Electronics Co., Ltd.,
Kyungki-do, Rep. of Korea

[21] Appl. No.: 09/066,532

[22] Filed: Apr. 27, 1998

[30] **Foreign Application Priority Data**

Apr. 26, 1997 [KR] Rep. of Korea 97-15728

[51] Int. Cl.⁷ H01J 29/56

[52] U.S. Cl. 702/89; 315/8; 315/368.21;
315/371

[58] **Field of Search** 702/89; 713/323,
713/322, 324; 315/8, 364, 368.21, 370,
371

[56] **References Cited**

U.S. PATENT DOCUMENTS

5,481,732 1/1996 Shahbazi 713/323
5,603,040 2/1997 Frager et al. 713/323
5,714,843 2/1998 Yoon 315/1

5,938,770 8/1999 Kim 713/300

Primary Examiner—Marc S. Hoff

Assistant Examiner—Hien Vo

Attorney, Agent, or Firm—Robert E. Bushnell, Esq.

[57] **ABSTRACT**

A method for controlling the power consumption in a tilt correcting coil is disclosed. The power consumption is corrected in the tilt correcting coil for correcting the tilt of the images of the cathode ray tube. If a microcomputer judges that the mode is the on-state mode, then the microcomputer outputs a tilt correcting PWM signal in accordance with the user's inputting. Then the output tilt correcting PWM signal is converted into a dc voltage, and the level is adjusted. Then the signal is supplied to the tilt correcting coil, so that the tilt of the image on the screen would be corrected. In the cases of the standby mode, the suspend mode and/or the power-off mode, the microcomputer outputs a signal which has a function of minimizing the power consumption of the tilt correcting coil. Therefore, the tilt of the image of the screen is corrected in the normal manner. On the other hand, in the cases of the standby mode, the suspend mode and/or the power-off mode, the tilt correcting coil does not consume any power, thereby satisfying the power consumption definition of the power-off mode.

12 Claims, 2 Drawing Sheets

